



Champaign County Juvenile Detention Center Master Gardener Community Garden

Herbs and Spices Lesson

Time

1.5 hours

Overview

Many of the foods we eat and are familiar with today are flavored with different spices and herbs. Spices and herbs enhance our eating experience with the addition of their flavors and smells. We take many of them for granted because they are so commonplace in today's world but one would be surprised to know the long and colorful history spices and herbs have had in human history. This lesson provides an opportunity to discuss in some detail some of the more common or important spices and herbs used today and how they are used in various cuisines.

Objectives

Students will:

- Discuss the history of herbs and spices.
- Examine the flavor and aroma of different herbs and spices.
- Learn how herbs and spices are used in different cultures around the world.
- Discover associated folklore and interesting trivia about herbs and spices.

Supplies

The supply list is based on the spices and herbs chosen to be discussed. This is very flexible and instructor driven.

For this lesson the fresh version is preferable and if there any other forms such as powder it ideally should be included to demonstrate differences between fresh and dried forms and also in some cases the fresh version are more expensive and not as familiar.

If there are seasonings that the instructor is familiar with that represent a blend of some of the herbs and spices talked about then it is a good idea to include them. An example of this used in this lesson was Jamaican Jerk Seasoning which uses pimento, thyme, cloves and black pepper as its main ingredients or Indian Curry Powder which uses cumin and coriander (cilantro) powder.

These seasonings were also used in the preparation of the snacks and helped to demonstrate in a very real way that these spices and herbs are used and how they taste. This has proved to be a big hit with the kids, many of them have never been exposed to such seasonings in their foods.

One could also bring other herbs or spices that are common or just interesting for purely demonstration purposes. They include, but are not limited to the following:

- Basil (fresh)
- Cilantro (fresh leaves)
- Parsley (fresh leaves)
- Thyme (fresh)
- Ginger root
- Nutmeg (whole form with mace preferable as well as powdered form)
- Cloves (whole)
- Pimento/Allspice (whole and ground form)
- Cinnamon sticks and powdered form
- Black peppercorns (whole and any colored ones if available as well as ground form)

How to set up supplies

Lay out herbs and spices on the table. Distribute each herb and spice in Ziploc bags so that it can be easily passed around. As one person talks about an individual spice or herb another person can pass it around to the kids for them to smell and/or taste.

Snack

There is a lot of room for creativity and flexibility for the snacks in this lesson. It is best to tie the snacks to the various spices and herbs. The snacks should ideally be of the sweet and savory type to demonstrate the various uses of spices and herbs.

For this lesson the snacks suggestions are:

Sweet

Archer brand Chai spice cookies
(available at Target)
Sweet potato pie
Apple cider with cinnamon sticks

Savory

Chips and salsa
Baked Jerk chicken pieces
Dip with raw veggies
Basil pesto with pita bread

Recipes for some of these snacks are included at the end of the lesson.

Activity

Tasting of various foods flavored with spices and herbs and the discussion is an activity

Other possibilities include:

Create your own salsa
Iron Chef

Sources

www.mccormick.com- The Enspiclopedia

www.wikipedia.org

Herbs and Spices

DO: Begin by introducing yourself and the other Master Gardeners by first names.

SAY: Good afternoon. We are a group of Master Gardeners of Champaign County here to provide a gardening program today at JDC. In the fall and winter months we come every other week to give a lesson on plants, eating right, and taking care of the planet. In the spring and summer we work together with you to plant and maintain a vegetable and flower garden in the outside rec area. (depending on time... I became interested in gardening because... Does anyone else have gardening experience or a relative who gardens?)

Today's lesson will be... I am... with other volunteers...(introduce themselves).
(Participants may introduce themselves also.)

Spices have a long and important place in human history. They are so commonplace and easily accessible today that it is hard to imagine that for centuries wars were fought, new lands discovered, ailments cured, and fortunes made all in the name of spices.

Spices have always captured people's imaginations. They trigger our senses.

DO: Ask the students what senses are stimulated by spices.

SAY: That's right, they trigger our sight with their vibrant colors, our smell with their enticing fragrances, and our taste with their distinct flavors.

Primitive Beginnings

SAY: The word "spice" first appeared at the end of the 12th century. The use of herbs dates back to early humans.

Primitive peoples wrapped meat in the leaves of bushes, accidentally discovering that this enhanced the taste of the meat, as did certain nuts, seeds, berries--and even tree bark.

In ancient times, spices and herbs were used as a way to mask the often unpleasant taste and odor of food, and later, to keep food fresh. This was really important since there was no refrigeration and ways to preserve foods.

Spices and herbs were also a precious commodity as ingredients of perfumes which people relied heavily on as in days of old people did not take frequent baths nor had access to products such as deodorant and so needed scents to mask bad body odor.
This fact was a big hit with the kids.

Precious Commodities in Ancient Times

SAY: In days of old spices and herbs were rare and therefore expensive commodities. They were so expensive that generally only rich people could afford them.

Legend has it that around 1000 B.C. Queen Sheba visited King Solomon in Jerusalem to offer him "120 measures of gold, many spices, and precious stones." People were bought and sold for a few cups of peppercorns.

Arab traders were the first to introduce spices into Europe. Realizing that they controlled a commodity in great demand, the traders kept their sources of supply secret and made up fantastic tales of the dangers involved in obtaining spices.

The Spanish, Portuguese, Dutch, and British empires all enjoyed leading roles in running the spice trade routes for a time.

In the 5th century, the prophet Mohammed took advantage of the spice trade to spread his messages. People were probably more inclined to listen to what he had to say, since he was selling irresistible spices.

Spices have been the reason for some of the greatest adventures in human history, like Christopher Columbus' voyage. Christopher Columbus set sail in 1492 to head west hoping to hit the Indian coast and find gold and spices.

He didn't make it to India, and he did not find the spices he was looking for, but it led to the discovery of the New World (the Americas). His exploration of the Caribbean islands, uncovered new spices and flavors that have become favorites all over the globe: familiar names like red pepper (which we know today as a wide variety of chilies), vanilla, and allspice.

Where Are We Now?

SAY: Today, there are no colonial empires and no secret spice trade routes. Thanks to globalization we have access to many spices and herbs.

We use spices in almost everything we eat, and costs are relatively low. It is hard to imagine that these fragrant bits of leaves, seeds, and bark were once so desired and expensive.

Now we are going to discuss some common herbs and spices.

DO: When discussing the individual herb or spice, encourage the kids to see, smell &/or taste them, share their thoughts on how the herb or spice tastes and smells and to share any culinary uses they may know about.

Feel free to pick and choose herbs and spices that you are familiar with from the following list:

Basil

Description

Basil (also called sweet basil) is a tender low-growing herb that is grown as a perennial in warm, tropical climates. It is usually green, although there are purple varieties.

Flavor & Aroma

Fragrant and sweet.

Taste: slightly minty taste, somewhat bitter.

Uses

It is prominently featured in varied cuisines throughout the world including Italian, Thai, and Vietnamese. Basil is used in tomato sauces, pesto, pizzas and cheeses in Italian cooking. It is used in green Thai curry blends and as flavoring for many vegetable, seafood, poultry dishes in Thai and Vietnamese dishes.

Source/Origin

Basil is originally native to India and other tropical regions of Asia, having been cultivated there for more than 5,000 years.

Cilantro

Description

Cilantro also commonly called coriander; Chinese parsley is an annual herb of the parsley family. All parts of the plant are edible, but the fresh leaves and the dried seeds are the most commonly used in cooking. The leaves are light to medium green and feathery looking. The dried fruits are called coriander seeds and are a light brown and ground into coriander powder.

Flavor & Aroma

The leaves described as waxy, citrus, and soapy

The seeds have a lemony citrus flavor when crushed; it is also described as warm, nutty, spicy, and orange-flavored. The taste of the leaves is quite different from the seeds.

Uses

Cilantro is used in Asian, Mexican, Indian, Tex-Mex, Caribbean, Middle Eastern & Mediterranean cooking

The fresh leaves and stems are an essential ingredient in many Vietnamese foods, Asian chutneys, and Mexican salsas.

Chopped coriander leaves are also used as a garnish, cooked in many dishes with lentils, vegetables and many curries. In Indian cooking, whole or ground up coriander seeds are a key ingredient in masala and curries where it is combined with another spice called cumin. Outside of Asia, coriander seed is an important spice for sausages in Germany.

Medicinal Uses

It has been used for medicinal purposes since ancient times. Still used in Iran (thought to help anxiety), India (thought to help digestion).

Origin/Source

Coriander grows wild in South East Europe and had been cultivated in Egypt, India and China for thousands of years. Today it is grown everywhere including the US & Mexico.

Folklore

The herb cilantro is thought to be one of the earliest plantings in North America (dating back to 1670 in Massachusetts).

Parsley

Description

It is a bright green, biennial herb, also used as spice. It is very common in Middle Eastern, European, and American cooking. Two forms of parsley are used as herbs: curly leaf and Italian, or flat leaf. Curly leaf parsley is often used as a garnish. Today this slightly peppery, fresh-flavored herb is more commonly used as a flavoring and garnish. Dried parsley is available in the spice section of most supermarkets but bears little resemblance to the flavor of fresh.

Flavor and Aroma:

Generally described as fresh& green

Taste: slightly peppery

Uses:

Parsley adds color and visual appeal to many foods. Sweet and rich, it brings out the flavor of other spices and herbs.

It is used in egg dishes, soups, stews, stock, and pesto. It also seems to lessen the need for salt in soups, stocks and sauces.

It is popular in Middle Eastern dishes such as tabbouleh.

Origin/Sources

Main sources are the US, Canada, Hungary, Spain, France

Thyme

Description

Thyme is a small perennial of the mint family. The leaves are tiny and aromatic

Flavor & Aroma

Warming and pungent

Uses

Thyme is used in stuffing, meats, stews, fish, and game. Thyme is part of a Caribbean blend of

seasonings called jerk and is also used in curry blends.

Sources

Most thyme is imported from Spain.

Folklore

Thyme dates back to ancient Greece, where it symbolized courage. Roman soldiers bathed in water infused with thyme to gain vigor, courage and strength.

Ginger

Description

Ginger is a knobby shaped root of a perennial herb. Ginger root can be used in the fresh form, dried form, powdered, or as crystallized ginger where the gingerroot is cooked in syrup and dried.

Flavor & Aroma

The flavor of Ginger is characterized by its unique combination of lemon/citrus, soapy and musty/earthy flavor notes. It is warming to taste

Uses

In Western cuisine, ginger is traditionally restricted to sweet foods, such as ginger ale, gingerbread, ginger snaps, ginger cake and ginger biscuits. In India, fresh ginger is one of the main spices used for making lentil curries and other vegetable preparations. In Japan, ginger is pickled or grated and used raw on tofu or noodles. It is used as a spice in Chinese cuisine to flavor dishes such as seafood or mutton. Ginger is also used as a spice added to hot coffee and tea

Medicinal Uses

Ginger has been found effective by multiple studies for treating nausea caused by seasickness, morning sickness and chemotherapy. Ginger tea is a folk medicine used for colds. Used for upset stomach, colic in babies, help joints in arthritis, possibly for heart disease, lowering cholesterol. Lots of research going on, even research in cancer treatments

Origins/Sources

Thought to have originated in China and spread to India, Southeast Asia to Europe and westward

Folklore

In 1500's gingerbread was a gift of love. In 1800's ginger was sprinkled on top of beer or ale and stirred into the drink with a hot poker –thus the invention of ginger beer.

Nutmeg

Description

The nutmegs are a genus of evergreen trees indigenous to tropical Southeast Asia and Australasia. They are important for two spices derived from the fruit, nutmeg and mace. When ripe the fruit splits in half exposing a netlike covering known as the mace. The mace wraps a dark brown, brittle shell inside which there is a single glossy, brown, oily seed –the nutmeg.

Flavor

Nutmeg and mace have similar taste qualities, nutmeg having a slightly sweeter and mace a more delicate flavor.

Uses

Mace is often preferred in light-colored dishes for the bright orange, saffron-like color it imparts. Nutmeg is a flavorsome addition to savory and sweet dishes and is best grated. In Indian cuisine, nutmeg powder is used almost exclusively in sweet dishes. In Middle Eastern cuisine, nutmeg powder is often used as a spice for savory dishes. In European cuisine, nutmeg and mace are used especially in potato dishes and in processed meat products; they are also used in soups, sauces and baked goods. Nutmeg is a traditional ingredient in mulled cider, mulled wine, and eggnog

Sources

Indonesia and Grenada are the main producers of nutmeg.

Folklore

Connecticut is known as the “Nutmeg State” because of the tradition of con-men who would sell whittled wooden “nutmegs” to unsuspecting housewives.

Cinnamon

Description

Cinnamon is the dried inner bark of various evergreen trees. At harvest, the bark is stripped off and put in the sun, where it curls into the familiar form called "quills."

Flavor

Cinnamon is characteristically woody, sweet and earthy in flavor and aroma. It is warming to taste.

Uses

Cinnamon in the ground form is used in baked dishes, with fruits, and in confections. It is used in the preparation of some kinds of desserts, chocolate, spicy candies, tea, hot cocoa and liqueurs. In the Middle East, India it is often used in savory dishes of chicken and lamb. In the United States, cinnamon and sugar are often used to flavor cereals, bread-based dishes, and fruits, especially apples.

Medicinal Uses

Cinnamon has traditionally been used to treat toothache and fight bad breath and its regular use is believed to stave off common cold and aid digestion. Cinnamon is also used as an insect repellent

Origins/Sources

Cinnamon comes from Sri Lanka, and the tree is also grown commercially at India, Java, Sumatra, the West Indies, Brazil, Vietnam,

Folklore

Cinnamon was one of the first known spices. The Romans believed Cinnamon's fragrance sacred and burned it at funerals. Because Cinnamon was one of the first spices sought in the 15th Century European explorations, some say it indirectly led to the discovery of America. It is mentioned in the Bible. It was a spice that was given to royalty as a gift.

Black Pepper

Description

Black pepper is a flowering vine cultivated for its fruit, a berry which is usually dried. The dried berry is called a peppercorn. For black pepper, the berries are picked while still green, allowed to ferment and are then sun-dried until they shrivel and turn a brownish-black color. The same fruit is also used to produce white pepper, red/pink pepper, and green pepper.

It is a good idea to differentiate the black pepper vine plant from other pepper plants such as jalapeño.

Flavor and Aroma

Black pepper has a sharp, penetrating aroma and a characteristic woody, piney flavor. It is hot and biting to taste.

Uses

Black Pepper adds flavor to almost every food of every nation in the world. It is used in rubs, spice blends, salad dressings, and peppercorn blends. Ground black peppercorn, usually referred to simply as "pepper", may be found on nearly every dinner table in some parts of the world, often alongside table salt.

Origins/Sources

The principal exporters for black pepper are India, Indonesia, Brazil and Malaysia.

Folklore

Because pepper can be stored for many years without losing its flavor and aroma, it has long been known as the master spice. Pepper was so precious in ancient times that it was used as money to pay taxes, rent. It was weighed like gold and used as a common medium of exchange, In fact at one time it was known as black gold.

Cloves

Description

Cloves are the dried, unopened, nail-shaped flower buds of the evergreen. They are reddish-brown in color and can be used in the whole form or powdered form.

Flavor & Aroma

The flavor of Cloves is strong, pungent, sweet--almost hot. They are one of the most penetrating of all spices and their bitter, astringent flavor leaves a numbing sensation in the mouth.

Uses

Cloves have historically been used in Indian cuisine, where it is often paired together with cumin and cinnamon in a blend of spices called garam masala. It is used in rice, meat and vegetable dishes in Indian as well as in Mexican cuisine. In the U.S., cloves are used in meats, salad dressings, and desserts. Clove is a key flavor contributor to ketchup and Worcestershire sauce seasoning blends. Chinese and German seasonings also depend on Cloves to flavor meats and cookies.

Medicinal Uses

Cloves are used in Traditional Indian (Ayurveda), Chinese medicine and western herbalism and dentistry where the essential oil is used as a numbing agent for dental emergencies. It is used for many digestive problems.

Origins/Sources

Cloves are believed to be native to Indonesia. Although Indonesia is the largest producer of cloves, Zanzibar and Madagascar are the major exporters.

Folklore

The name Cloves comes from the French "clou", meaning nail. Cloves were very expensive and played an important part in world history. Wars were fought to secure exclusive rights to the profitable clove business. In Indonesia, where cloves were first found, parents planted a clove tree when a child was born.

Cumin

Description

Cumin is the dried seed of the herb, a member of the parsley family.

Flavor& Aroma

Cumin is characterized by a strong musty/earthy flavor which also contains some green/grassy notes.

Uses

The flavor of Cumin plays a major role in Mexican, Thai, Vietnamese, and Indian cuisines. Cumin is a critical ingredient of chili powder, curry powder. Cumin can be used to season many dishes, as it draws out their natural sweetness. It is traditionally added to curries, enchiladas,

tacos, and other Middle-eastern, Indian, Cuban and Mexican-style foods. It can also be added to salsa to give it extra flavor. Cumin has also been used on meat in addition to other common seasonings. The spice is a familiar taste in Tex-Mex dishes and is extensively used in the cuisines of the Indian subcontinent.

Origins

Historically, Iran has been the principal supplier of Cumin, but currently the major sources are India, Syria, Pakistan, and Turkey.

Folklore

Superstition during the Middle Ages cited that Cumin kept chickens and lovers from wandering. It was also believed that a happy life awaited the bride and groom who carried cumin seed throughout the wedding ceremony.

Pimento/Allspice

Description

Allspice, also called Jamaica pepper or pimento is a spice which is the dried unripe fruit of the *Pimento* plant. The name "allspice" was coined by the English, who thought it combined the flavor of several aromatic spices, such as cinnamon, nutmeg, and cloves. Allspice is not, as is mistakenly believed by some people to be a mixture of spices, especially since it is often seen in the ground up form. The whole dried form looks like a peppercorn.

Flavor & Aroma

Pleasant blend of cinnamon and clove

Uses

Allspice is one of the most important ingredients of Caribbean cuisine. It is used in Caribbean jerk seasoning. It is used in Mexican cooking in mole sauces. It is also an ingredient in commercial sausage preparations and curry powders and in pickling. Allspice is also used in Middle Eastern cuisine, where it is used to flavor a variety of stews and meat dishes. In America, it is used mostly in desserts, but it's also responsible for giving Cincinnati-style chili its distinctive aroma and flavor as well. Allspice is commonly used in Great Britain and appears in many dishes, including in cakes. Allspice is also a main flavor used in barbecue sauces.

Origins/Sources

Most Allspice is produced in Jamaica, but alternative sources include Guatemala, Honduras, and Mexico.

Folklore

For centuries, the Mayan Indians used allspice to embalm the bodies of important leaders. It was one of the spices Christopher Columbus discovered on the Caribbean Islands when he asked the native Indians if they harvested black pepper.

Activity

We found that talking about the spices and herbs took about 1 hour, so we did not have time for a planned activity. It turned out that the tasting of the various snacks and identifying the various spices and herbs in the snacks were an activity in itself which went over very well with the kids.

Activities for this lesson can be very creative. If time permits here are some suggestions:

Create Your Own Salsa:

Get ingredients for salsa (tomato, onion, peppers etc) which are distributed to kids and have them flavor it with spices/herbs of their choice. (You will need to have some spices and herbs like black pepper, cumin, etc available in small quantities for individual tables).

Another idea is a take on the *Iron Chef* where kids are asked to put together on paper combinations of spices and herbs to flavor various ingredients to create a dish.

Recipes for Snacks

Jerk Chicken : Marinate chicken breast with Jamaican jerk seasoning to taste overnight preferably. Bake in oven. Cut into bite sized pieces for sampling.

Curry Dip: Mix 1/4-1/2 tsp of curry powder in 4oz of sour cream